

# A NEW SPECIES OF *GONIOTHALAMUS* BLUME (ANNONACEAE)<sup>1</sup>

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(With six text-figures)

**Key words:** *Goniothalamus shraddhae* sp. nov., Annonaceae, Kathambari, W. Bengal.

*Goniothalamus shraddhae* Dutta and Almeida, a new species, is described in detail. The Latin diagnosis, illustrations, similarities and differences of the present species and its closely related congeneric, *Goniothalamus ridleyi*, are provided in support of the new species. The holotype has been deposited in Blatter Herbarium.

## INTRODUCTION

While doing field work in Kathambari area, Jalpaiguri dist., West Bengal, we observed an evergreen fruiting tree which looked like a member of the family Lauraceae. After collecting the material, we realised that it belonged to the family Annonaceae. Critical studies on the collected material were done at Blatter Herbarium; and to confirm its identity, work was done at Central National Herbarium, Calcutta and Western Circle, Pune. It was confirmed that the specimen belonged to a species of *Goniothalamus*, Blume. After referring to the vast literature on Annonaceae of India at BLAT, BSI Calcutta and Pune, it proved to be a new species of *Goniothalamus* Blume. Microscopic studies such as wood anatomy, stomatal type, epidermal appendages and seed anatomy carried out on the collected material helped to confirm the identity of the genus *Goniothalamus*.

Detailed description of the species, Latin diagnosis and line drawings are provided in the text.

*Goniothalamus shraddhae* sp. nov.

Similiss *Goniothalamus ridleyi* King. foliis membranaeceis cum basibus acutis apicibus

acuminatis et carpellis sessilibus sed differt petiolis longioribus drupis sessilibus cum parietibus crassis cum basibus "U" formatis leviter sculcatis cremeis semenibus secretionibus gummosis.

This species is similar to *Goniothalamus ridleyi* King, in having membranous leaves with acute base and acuminate apex and almost sessile carpels. The new species differs from it in the following characters: longer petiole, sessile, thick walled drupelets with "U" shaped, slightly grooved base, and cream coloured seeds oozing a gummy secretion.

Holotypus- SD 470 (BLAT). Holotype- SD 470 (BLAT), St. Xavier's College, Mumbai.

Locus - Churabhija, Sialdoba Locality- Churabhija, Sialdoba.

Lectus: 21 Novembre, 1995, date of collection 21st November, 1995

*Goniothalamus shraddhae* sp. nov.

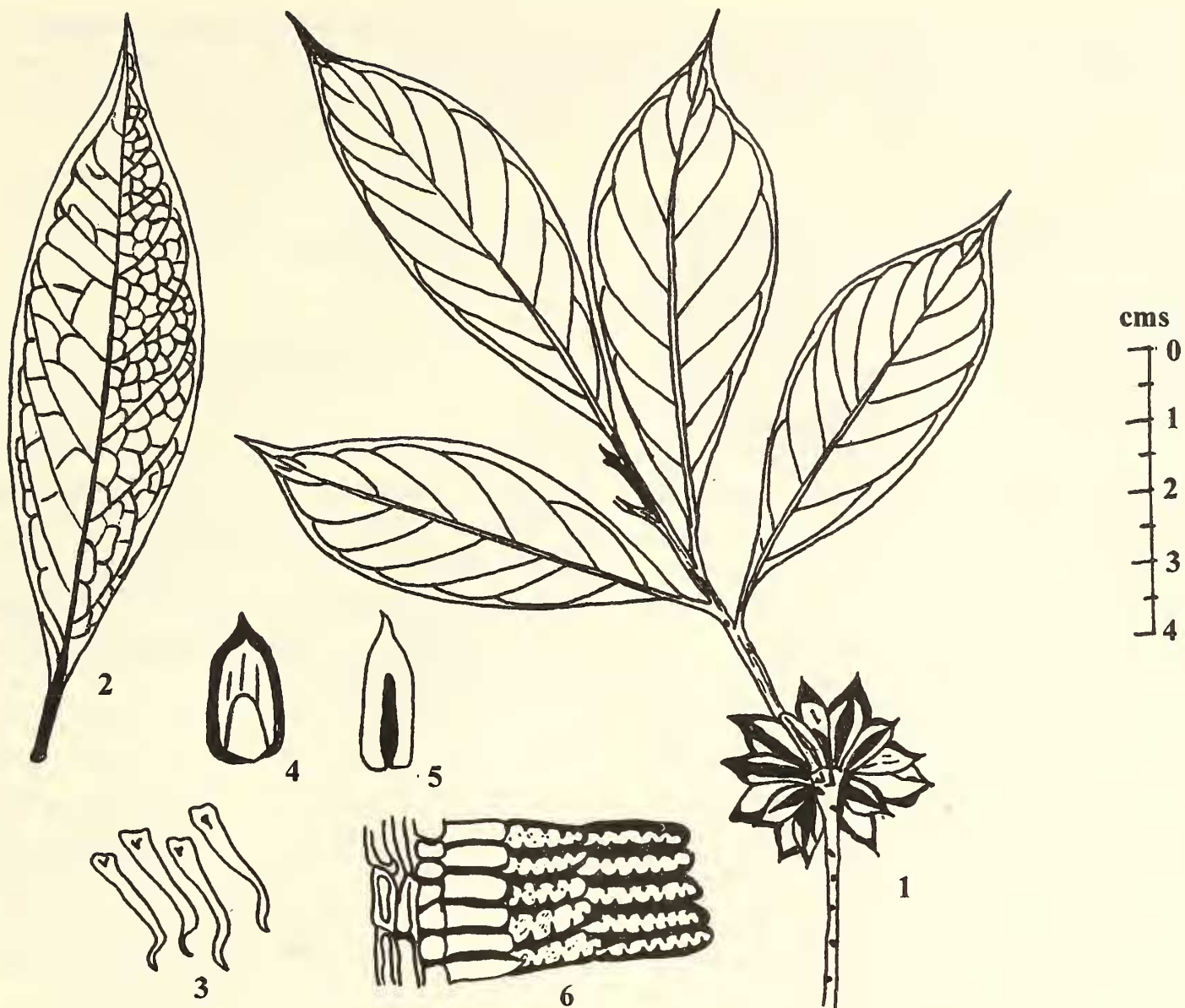
(Fig.-1)

Evergreen bushy tree; 2.5-3 m in height, having ash coloured stem attaining about 15-20 cm diameter at the base; branches arise slightly above the axil of the leaf, black in colour. Leaves simple, alternate, exstipulate, ovate-lanceolate, acuminate, acute at the base, 10-12 cm x 3.75 -5 cm; margin entire, thick, rolled inwards, reticulately veined; midvein very prominent on the ventral surface, continuous with the petiole about three-fourth of the length of the lamina,

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*Goniothalamus shraddhae* Dutta and Almeida Annonaceae

Figs. 1-6: 1. Fruiting twig; 2. Ventral surface of the leaf showing details;  
3. Epidermal appendages of leaf; 4. Drupelet showing 'U' shaped groove; 5. L.S. of drupelet;  
6. Seed showing ruminant endosperm.

striate. Lateral veins 10-16, running towards the margin, finally meeting at the apex, basal veins straight, upto half of the distance of the lamina, later undulate, forming a curve and uniting with the apex of the lateral veins and nervules; nervules many, forming a close network, pubescent in nature, hairs visible only under the microscope. Petiole 1.5 - 2 cm long, slightly brownish black in colour, deeply grooved on the dorsal surface and rounded on the ventral surface. Fruit an etaerio of drupes, in clusters on the branch around a swollen axis giving a stellate appearance, closely packed, 20-22 in number leaving little gaps between the fruitlets

(visible only in fresh condition); each fruitlet sessile, oblong, glossy green when young, brownish-black at maturity, compressed after pressing; base of the fruitlets slightly grooved, apex narrowly acute, terminating in a very short acumen. In dry condition the fruit is very hard with a lauraceous odour, grooved on one side and flattened on the other. Fruit in L.S. hollow in the centre, epicarp brownish, mesocarp white, seed with gummy substance. Endosperm ruminant. Seed single 1.5-1.7 cm x 0.8 cm with a short basal stalk, erect, 3 ribbed, occupies three-fourth the length of the fruit. L.S. of the seed shows simple pitted ruminant endosperm with



gummy secretion oozing out.

This species is very closely allied to *Goniothalamus ridlei* King. Detailed study on the fruiting material showed the following differences:

<i>G. ridlei</i> King.	<i>G. shraddhae</i> sp. nov.
1. Petiole 1.5-2 cm long.	Petiole 2-2.7 cm long.
2. Ripe carpels stalked, stalk 5 mm. long	Ripe carpels sessile.
3. Base of the drupelet not grooved.	Base of the drupelets slightly grooved, U-shaped
4. Drupe thin walled.	Drupe thick walled.
5. Seed pale brown coloured	Seed cream coloured.
6. Seed slightly hairy, not having gummy secretions.	Seed glabrous oozing out gummy secretions.

**Etymology:** This species is named after Miss. Shraddha Shimpi, a close friend of the first author and a teacher in Botany, who inspired her during her undergraduate studies.

This is a very rare species in the ever-green forest area. Attempts to collect the plant in flowering condition were not successful.

#### ACKNOWLEDGEMENT

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